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Student Involvement Urged
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University of Maryland at College Park

OUTLOOK

April 16, 1990

University Bands Plan Gala Eightieth Anniversary Celebration

On a sunny afternoon in October of 1909, 19 students of the Maryland Agricultural College carried musical instruments onto a drillfield in College Park for their first public performance. That day marked the beginning of a grand tradition of wind band performance at the university: the first presentation by what was to become the University of Maryland Bands.

A festive band concert and a special horn festival will be the highlights of a two-day celebration on April 20-21 of the eightieth anniversary of the band program on the College Park campus. Six former bandmasters, whose tenure covers more than 40 years of band history, will return for the commemoration.

A special joint concert by the Wind Ensemble, directed by John E. Wakefield, and the concert Band, directed by L. Richmond Sparks, on Friday, April 20 at 8 p.m. in Tawes Theatre will be the focus of the first day's celebration. The free performance will feature music by Morton Gould, Charles Ives, Ralph Vaughan Williams and, of course, John Philip Sousa. Also featured will be solo performances by music faculty artist Emerson Head, trumpet, and guest artist Louis Stout, horn, from the University of Michigan.



University of Maryland Concert Band

Returning former bandmasters include Robert Landers (1950-55), Hubert Henderson (1955-65), Norman Heim (1960-62), Henry Romersa (1961-62), Acton Ostling Jr. (1962-68) and Fred Heath (1968-74). Efforts are being made to reach all alumni who have played in the University of Maryland Bands over its 80-year history to invite them to attend the concert and a reception that will follow it.

The celebration will continue on Satur-

day April 21 in Tawes Recital Hall with a full day of activities including rehearsals, a clinic, and the horn festival, featuring guest artists Stout and Philip Farkas of Indiana University.

Stout will give a lecture-demonstration at 11 a.m. on "The Horn: From the Forest to the Concert Hall," featuring his famous collection of more than 50 antique horns. A concert by the University of Maryland Horn Ensemble and a special Military Band Horn Ensemble

made up of horn players from several of the area's service bands, under the direction of Stout, Farkas and music department horn professor Orrin Olson will be presented at 2 p.m. The final event will be a performance by a massed horn choir at 4:30 p.m.

Rehearsals begin at 9 a.m. Saturday. The events are free and no registration is required; a lunch will be available in the Tawes lobby at 1 p.m. for \$3. Call 454-6803 for more information. ■

Seeger to Head Training Programs for International Journalists

Murray Seeger, a veteran journalist with extensive overseas reporting experience, has been appointed to coordinate a series of training programs in cooperation with the university's College of Journalism, Office of International Affairs and the Center for Foreign Journalists (CFJ) in Reston, Va.

Seeger recently arranged and moderated a three-day pilot seminar at the university as part of a month-long CFJ work-study program for 10 Polish journalists.

Similar international journalism sessions at the university will be built into other programs planned by CFJ this spring and summer for groups of journalists from Eastern Europe and elsewhere.

"This kind of collaboration holds a great deal of promise," College of Journalism Dean Reese Cleghorn said. "It brings a special, international dimension to the College of Journalism. And I think Murray Seeger, with his background as an international journalist, is the ideal

person to handle the important coordinator role."

During a 14-year span with the *Los Angeles Times*, Seeger served as Washington Bureau Chief and European economics correspondent, Moscow Bureau Chief, Bonn and East Europe Bureau Chief and European economics correspondent (Brussels).

Prior to that, he worked for *Newsweek*, the *New York Times*, *Cleveland Plain Dealer* and *Buffalo Evening News*. From 1982-87, he was director of information for the American Federation of Labor/Congress of Industrial Organizations in Washington, D.C.

He returned to Washington last December after covering economic and political news in Asia for two years as a senior editorial consultant to *The Straits Times*, largest English-language daily newspaper in Singapore.

Seeger is a graduate of the University of Iowa and a former Nieman Fellow at Harvard University. ■

System Pay Study Releases Results of Employee Survey

A distinct majority of University of Maryland system employees are satisfied working on their campuses and feel very positive about their supervisors.

But, only about one out of five is satisfied with the university's policies dealing with pay. Few understand how salary decisions are made and fewer than half feel their job descriptions accurately summarize their current jobs.

These are among the findings of last December's survey of university employees and focus group meetings with groups of employees at each of the 11 system campuses early in the new year.

Results of the system-wide pay program study undertaken by the consulting firm of Mercer Meidinger Hansen will be used to reposition the university's pay program, according to interim chancellor James A. "Dolph" Norton.

About half (4,808) of the recipients returned completed the mail-in survey form, and, because such a broad cross-section of employees participated, the

results have a high degree of accuracy, notes project manager Bram Groen.

Overall, according to the study, about two-thirds of those surveyed say they are satisfied with their jobs. A majority believe their supervisor does a good job, is fair, and generally sets high standards for work.

Supervisors, however, feel they do not have enough authority and flexibility when it comes to salary policies and classification decisions.

Most employees were candid about what they see as shortcomings in the UMS pay policies and most give the pay program marginal marks.

In both the survey and focus groups, employees identified four aspects of the current pay program that need attention.

Internal equity. Employees believe that similar jobs on campus don't always receive similar pay and many feel pay is unfair between campuses.

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Colloquium on Ozone Depletion

A Chemistry Research Colloquium, "Polar Ozone Depletion," will be presented April 19 by Mario Molina, professor of chemistry, Department of Chemistry and Department of Earth and Planetary Sciences, Massachusetts Institute of Technology, Cambridge. Molina was one of the first scientists to identify the problem of ozone depletion at the Earth's poles due to chlorofluorocarbon compounds. The colloquium will be held at 4 p.m. in room 1325 of the Chemistry Building. Call 454-4422 for information.

RESEARCH HIGHLIGHTS

University Zoologists Create a New Kind of Oyster

Using eyedroppers full of potent neurochemicals, two College Park zoologists are controlling the transformation of free-swimming young oysters into mature, shelled oysters.

A few years ago, Dale Bonar and Steven Coon discovered that some important human neurotransmitters also induce the larvae of the Chesapeake oyster, *Crassostrea virginica*, to metamorphose. Using this finding, they are producing some unusual molluscs at a fledgling oyster farm on the Chesapeake Bay.

For an oyster larva, metamorphosis marks the end of a race to find a permanent home. A newly spawned larva swims free for two or three weeks. Then it begins the search for a suitable substrate—usually piles of old oyster shells called "cultch"—on which to attach and metamorphose into a "spat" or young adult. If it doesn't find a suitable site once it has reached a certain stage, the larva will die within a few days.

"Originally we had been examining a battery of neurotransmitters for their effects on oysters," says Bonar, an associate professor in the Department of Zoology. He and Coon, a research associate in the Department of Microbiology, were following up Bonar's earlier work with neurotransmitter-induced metamorphosis in another member of the mollusc family, the snail. Two of the neurotransmitters they tested, epinephrine and norepinephrine, function as potent chemical messengers between nerve cells in humans.

Bonar and Coon added both these chemicals to tanks of water containing microscopic oyster larvae. They found that even at minuscule doses—about a tablespoon per 18-liter tank—either chemical would induce the larvae to begin metamorphosis within an hour.

This is the first evidence, they say, that these vertebrate neurotransmitters also serve a crucial function in an invertebrate species.

Coon says the newly attached oyster normally produces only norepinephrine to initiate the transformation process. But in a laboratory setting, "norepinephrine or epinephrine can be used to mimic the event happening in nature."

Mimic it—with one crucial exception. When treated with either chemical (the researchers use synthetic epinephrine), the larvae completely bypass the search and attachment process so crucial to their normal life cycle. They simply drop to the bottom of the tank and begin

In the wake of declines in the once prodigious oyster harvests in the bay, some of Maryland's oystermen have turned to the farming, or aquaculture, of oysters. With funding from the state, Coon and Bonar are using one such farm—St. George's Oyster Company in Piney Point, Md.—to test practical applications of the epinephrine treatment.

In a typical aquaculture operation, oyster farmers must fill huge tanks with cultch, release the larvae into the water, and then wait patiently for 10-15 percent to set and metamorphose. Once they are "seeded" with spat, the beds of cultch are hauled to sites offshore where the oysters can grow to harvestable size—a messy and herculean task.



Six-week old cultchless adult oysters, often called spat

metamorphosis without ever attempting to cement to the substrate. These "cultchless" oysters, as the scientists call them, grow into otherwise normal, shelled adults.

Coon says this scientific freak "helps the oyster industry because it provides an economical way of growing oysters commercially."

But, says Coon, because larvae dosed with epinephrine don't need cultch, they can be induced to metamorphose by the millions in smaller, lighter tanks, and are easier to move to bay sites.

In nature, not every oyster larva will successfully metamorphose. But with this sort of control over the process, "we can increase the numbers going through

metamorphosis—maximize what we get in the end," says Bonar. About 80-90% of treated larvae make the transformation to the adult form.

One "downside" of this, he says, is that "we may be allowing some to metamorphose that otherwise wouldn't live—so we're selecting for weaker oysters, ones that might not grow as fast or as large."

The team at St. George's produced their first crop of cultchless oysters—about 500,000—in 1988. Last year, they increased their harvest to 5 million. From the larvae they treat this spring, they plan to have another harvest of 5 million in the fall of 1991, says Coon.

Coon notes that St. George's has experienced one major problem: "cultchless oysters are eaten by crabs like they're going out of style." Crabs can pick up and crush these oysters, a dining technique not possible with molluscs that are firmly attached to the substrate. The St. George's team solved this problem by putting the young shellfish into bay waters in floating cages that the crabs can't penetrate.

The cultchless oyster's greater vulnerability is one reason, says Bonar, that "these aren't oysters you can just spread anywhere on the bottom. This is for controlled aquaculture only. The oysters have got to be cultured, maintained—taken care of one or two years or more."

But aquaculture may be the Maryland oyster industry's best bet, as pollution and disease continue to wipe out large sectors of the bay's natural oyster population. As Coon says, "even if we waved a magic wand and there was no pollution, no disease...it would still take three years or so for the oysters growing now to reach marketable size. Right now this research is making it possible for a moderate size oyster company to exist."

—Lisa O'Rourke

OUTLOOK

Outlook is the weekly faculty-staff newspaper serving the College Park campus community.

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Total Organic Monitor Developed to Support DEA, Public Safety Operations

A laser system that can detect the airborne "fingerprints" of chemical solvents used in the manufacture of cocaine and other drugs at distances of 1,000 feet or more is being developed by a team of College Park research scientists.

The project will develop the prototype of a "Total Organic Monitor" that can pinpoint toxic, flammable and explosive concentrations of those chemicals in the air. The Drug Enforcement Administration (DEA) is funding the project which is headed by Thomas D. Wilkerson, a professor with the Institute for Physical Science and Technology.

Illicit drug refining operations often entail high concentrations of processing

solvents such as acetone and ether in the surrounding air space. Most of these solvents have characteristic "fingerprints" that can be brought out by measuring the absorption of infrared light using a laser-based detector that operates at wavelengths of 2.4 and 3.4 micrometers, about five to seven times the wavelength of visible light. DEA agents need to assess these pollutant levels prior to legal entry of the suspected drug laboratories, Wilkerson notes.

The Maryland project involves close cooperation with DEA personnel and consultants in infrared science. Field tests of the prototype monitor are expected to take place this summer.

Wilkerson characterizes the project as "...yet another demonstration of the potential of laser 'remote sensing' methods for measuring atmospheric constituents."

The same principles will be adapted to detect leaks of natural gas and other compounds from storage, processing, and transport facilities.

Wilkerson and his colleague, U. N. Singh, say they are gratified by the opportunity to put laser technology in service to people's health and safety. ■

Lecture Will Examine Distinction Between History and Literature

Lois Potter, an English department faculty member at the University of Leicester, will present a lecture on "Mrs. Parliament and her Monstrous Child: Is it Literature or History?" at 3:30 p.m. Wed., April 18, in Room 1102 C of Francis Scott Key. "Mrs. Parliament and her Monstrous Child" is a polemical pamphlet produced during the 17th century civil war in England. In her lecture, Potter will consider the methods and problems involved when a researcher attempts to bridge the gap between literature and history. The lecture is sponsored by the Center for Renaissance and Baroque Studies in conjunction with the Departments of English and History. For more information call 454-2740.

Women in International Security Produces Internships Guide

Women in International Security (WIS) has compiled and written a complete guide for women (and men) seeking to take their first step into a career in the field of international security.

Internships in Foreign & Defense Policy is devoted to supporting women in these traditionally male-dominated areas.

WIS is a national, nonpartisan network and professional development program dedicated to enhancing the career prospects of women working on international issues. Funded by the Ford Foundation, it is run under the auspices of the Center for International Security Studies at Maryland which is located at the School of Public Affairs.

While some of the obstacles women

face in the work place have been overcome, there remain subtle barriers, particularly within organizations concerned with military or defense matters, foreign policy, and national policy and budget issues. The new book, published by Seven Locks Press, Cabin John, Maryland, is a tool that can lead women to a better understanding of the informal networks, rules, and procedures that may be important to successful employment in these kinds of institutions.

The 120-page directory offers step-by-step instructions in obtaining an internship, and includes detailed descriptions of more than 80 organizations, most of them in the Washington, D.C. area, that offer formal internship programs during the summer, and/or academic year. ■

Conference will Address Issues Affecting Blacks in Maryland

A conference examining "The Social and Economic Condition of Blacks in Maryland" will be held at the University of Maryland on Friday, April 27, in the Center of Adult Education, 8:30 a.m.-5 p.m.

Sponsored by the School of Public Affairs' Bureau of Governmental Research and the Afro-American Studies Program, the conference will provide a forum for experts in various fields to discuss the implications of state and local policies for Black Marylanders.

According to Allen Schick, director of the Bureau of Governmental Research, "The conference itself will not take a stand on policy matters, but will deal

with issues of current concern to government."

The conference presentations will be organized around four themes: government policies; implications and opportunities; community and economic conditions; employment and income; and government programs affecting the status of Blacks.

At noon, president William E. Kirwan will make brief remarks before introducing the luncheon speaker, Delegate Howard "Pete" Rawlings.

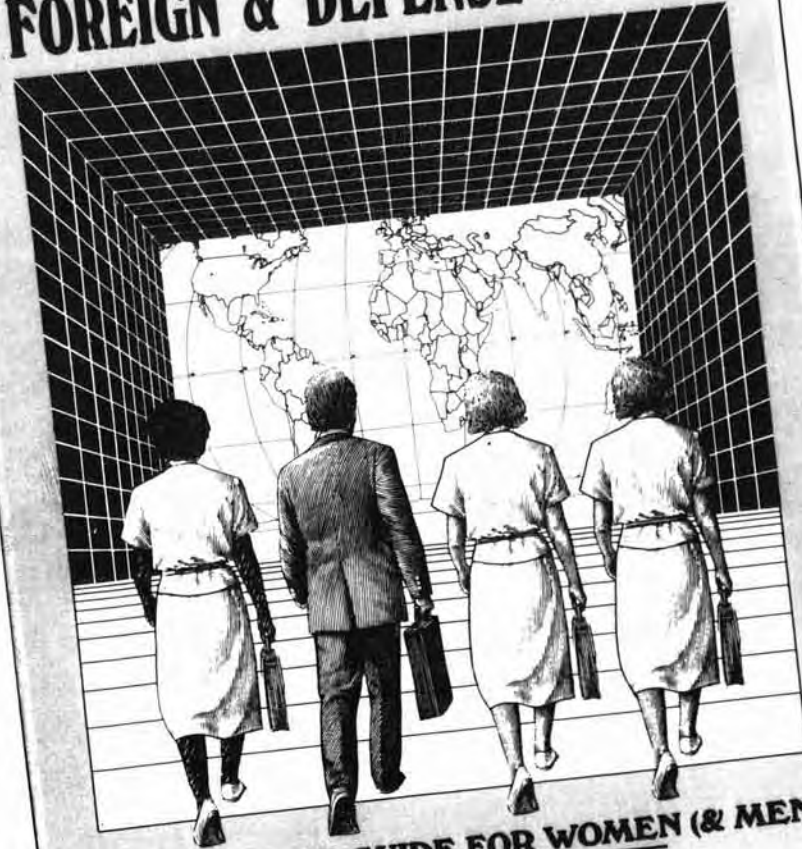
There is a \$25 registration fee and space is limited. Call Melissa Brink at 454-6193 for more information. ■

1989-90 Student Employee of the Year Chosen

Jason Sloan Boyd, a senior government & politics major, received the 1989-90 Outstanding Student Employee of the Year Award for his work as a coordinator of peer advisors in the Undergraduate Advising Center. One of 43 students recognized during the second annual Student Employee of the Year ceremony sponsored by the Job Referral Service on April 2, Boyd, who received a \$500 cash award, has already won at the state level, and will move on to the Northeast Regional Finals sponsored by the Northeast Association of Student Employee Administrators. The awards are based on nominations from supervisors evaluating a student's reliability, quality of work, initiative, disposition, and contributions to the employer.



INTERNSHIPS in FOREIGN & DEFENSE POLICY



A COMPLETE GUIDE FOR WOMEN (& MEN)
Women In International Security

Animal Sciences Looks to the Future

Within the next couple of years, the Department of Animal Sciences at College Park will add new faculty members and courses and complete a modern classroom and research facility to benefit the department's outstanding undergraduate students.

"Our objective as we make these changes," says Jerry DeBarthe, associate professor of animal sciences and director of the undergraduate program, "is to keep in line with modern agriculture as it fits into contemporary society."

Updating the undergraduate curriculum to meet student needs of the 1990s and beyond is a high priority for the department, says DeBarthe. As part of the department's plan, animal sciences will require students to take a core set of courses and then choose one of five options: animal management and industry; science and preprofessional, that will prepare students for graduate or veterinary school; lab animal management; avian business, which will be similar to animal management and industry but directed toward the poultry industry; and the new equine option.

"We will be placing a special emphasis on this new equine program," says Dennis Westhoff, chair of the Department of Animal Sciences. "We are in the process of hiring two equine faculty members and putting together a brochure. This is the first time in a long time that we will have a serious equine option here at College Park."

Because of state and regional interest

in horse racing, College Park is in a unique position to support this industry, DeBarthe says. The option will focus mainly on equine biomechanics, or the horse as athlete, he adds.

"We hope to offer a new equine course next fall," he says. "We believe this equine option will grow rapidly and be very popular among our undergraduates. In fact, we're receiving requests about it already."

Some of the equine courses the department plans to offer in the future include a survey of the equine industry, equine topics in science to keep up with current research, and horse management, complete with hands-on work with horses already located on campus.

These curriculum changes are expected to continue to attract the best and brightest animal sciences students to College Park. And, according to Westhoff and DeBarthe, to provide the best with the best, the department currently is building a modern classroom and research facility.

"We are especially excited about this new building," says Westhoff. "Our current building was built in 1969 and has no classrooms or other facilities for undergraduate students. The new building will include classrooms and a lecture hall, a student lounge, an autotutorial room, a library, a computer room, increased animal holding quarters and increased research laboratory space."

The new building is scheduled to be completed in December 1990. ■

Results of Employee Survey Released

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Competitiveness of salaries. Most employees believe their salaries are lower than those paid by other local employers.

Classifications. Many employees believe job classification should be a more objective process and expressed confusion over how and why positions become reclassified.

Pay for performance. Most employees feel their supervisors do recognize their day-to-day performance and contribu-

tions. Many, however, would like to see a stronger link between exceptional performance and pay decisions.

During the course of the pay study, Groen says, Mercer Meidinger Hansen will systematically examine and verify whether these employee perceptions are validated.

During the process, employees will continue to be involved and informed. For example, a questionnaire to describe job responsibilities will be distributed soon. ■

—Tom Ottwell

Calendar

April 16 to 25



Guitarist Gene Bertoncini will perform Sunday, April 22, 4 p.m., Center of Adult Education



Baritone Sanford Sylvan will perform Saturday, April 21, 8 p.m., Center of Adult Education

16 MON

Architecture Exhibit, featuring Mark Simon, Centerbrook Architects, today through May 4, Architecture Gallery. Call x3427 for info.

Art Exhibition: "Contemporary Latin American Photographers," organized by Aperture Photography, through April 27, The Art Gallery, Art/Sociology Bldg. Call x2763 for info.

Photography Exhibit: "At Work in the Fields of the Bomb," created by research photographer Robert Del Tredici, today through April 26, Parents Association Gallery, Stamp Union. Call x4754 for info.

Career Development Center Job Fair, noon-4 p.m., Grand Ballroom, Stamp Union. Call x4582 for info.

Computer Science Center Lecture: title TBA, Glenn Ricart, 2:30 p.m., 1400 Marie Mount Hall. Call x2946 for info.

Science, Technology and Society Lecture: "Imagining the Future: An Historian's Perspective," Joseph Corn, Stanford U., 3:30 p.m., 2309 Art/Soc. Bldg. Call x8862 for info.

Campus Senate Meeting, 3:30-6:30 p.m., 0126 Reckord Armory. Call x4549 for info.

Computer Science Colloquium: "Aspects of Heuristic Search Algorithms for Networks AND/OR Graphs," A Mahanti, 4 p.m., 011 Classroom Bldg. Call x4244 for info.

Space Science Seminar: "Electromagnetic Tornadoes in Space," Tom Chang, 4:30 p.m., 1113 Computer/Space Sciences Bldg. Call x0359 for info.

17 TUE

Graduate Research Interaction Day, featuring lectures and presentations by UMCP graduate students, 8:30 a.m.-5 p.m., Colony Ballroom, Stamp Union. Call x5491 or x5060 for info.

Employee Development Seminar, "Overview of Communication Services," 9 a.m.-noon, Maryland Room, Marie Mount Hall. Call x4811 for info.

Zoology Lecture: "The Influence of Ectoparasites on Starling Survival, and the Effectiveness of Green Plants as Natural Insecticides," Peter Fauth, noon, 1208 Zoo/Psych. Bldg. Call x3201 for info.

Systems Research Center Seminar: "Modelling of Robustness Problems: The Tree Structured Decomposition of Polynomials," Juergen Ackermann, UC-Irvine, 3 p.m., 1112 A. V. Williams Bldg. Call x5880 for info.

Population, Gender, and Social Inequality Lecture: "Gender of Class? The Case of Education Expansion in France," Jerald Hage, 3:30 p.m., 2115 Art/Soc. Bldg. Call x3112 for info.

Hoff Theater Movie: "Casualties of War." Call x4987 for info.

18 WED

Employee Development Seminar, "Effective Writing," 9 a.m.-4 p.m., 1143 Stamp Union, fee TBA. Call x4811 for info.

Counseling Center Research & Development Meeting: "The Black Middle Class Family," Bartholomew L. Landry, noon, 0106 Shoemaker Bldg. Call x2937 for info.

STS Film: "Silkwood," Vicki Bier, discussion leader, 3 p.m., 0220 Jimenez Hall. Call x5893 for info.

International Coffee Hour, 3-4:30 p.m., 0205 Jimenez Hall. Call x4925 for info.

Writers Here and Now Reading, featuring novelist, short story writer and essayist Peter Matthiessen reading from his works, 3:30 p.m., place TBA. Call x2511 for info.

Afro-American Studies and Public Affairs Lecture: "Marriage and Family in the African-American Community: Policy Issues," Belinda Tucker, UCLA, 3:45 p.m., 0102 F. S. Key Hall, reception to follow. Call x5665 for info.

Distinguished Scholar-Teacher Lecture: "Love Play, Laughter, and Language: How the Rabbits Reread the Bible," Susan Handelman, 4 p.m., Art/Soc. Bldg., reception to follow in Art/Soc. Atrium. Call x2530 for info.

Space Science Seminar: title TBA, Roald Z. Sagdeev, Institute of Space Physics, Moscow, 4 p.m., 1410 Physics Bldg. Call x3136 for info.

Campus Club Lecture: "A Faculty Member Becomes Provost," J. Robert Dorfman, Provost and Vice President for Academic Affairs, 8 p.m., Carriage House, Rossborough Inn. Call 699-5960 for info.

Hoff Theater Movie: "Casualties of War." Call x4987 for info.

19 THU

French Lecture: "Helene Cixous and the Myth of Feminine Writing (A Positive Approach)," Christiane

P. Makward, Penn. State U., 3 p.m., Language House Reception Hall. Call x4303 for info.

CHPS Lecture: "The Mystification of Sofia Kovalevskai," Ann Koblit, Hartwick College, 4 p.m., 1117 F. S. Key Hall. Call x2850 for info.

Chemistry and Biochemistry Colloquium: "Polar Ozone Depletion," Mario Molina, M.I.T., 4 p.m., 1325 Chemistry Bldg. Call x4422 for info.

Reliability Engineering Seminar: "Reliability Lessons Learned From Top-Level Navy Program Reviews," Douglas Patterson, Office of the Assistant Secretary of the Navy, 5:15-6:15 p.m., 2115 Chemical & Nuclear Engineering Bldg. Call x1941 for info.

Kinesiology Lecture: "Will Bob Beamon's 8.90 Ever Be Broken? The Social Bases of Athletic Performance," Bruce Kidd, Canadian Olympic Academy and U. of Toronto, 7:30 p.m., 1312 PERH Bldg. Call x2928 for info.

Meteorology Department Public Lecture: "Chaos and Climate," Edward Lorenz, MIT, 8 p.m., Auditorium, Center for Adult Education. Call x8321 or x2708 for info.

20 FRI

Linguistics Colloquium: title TBA, Andrew Barss, U. of Arizona, Tucson, noon, 0109 Hornbake Library. Call x7002 for info.

AAUW Published Women's Luncheon, featuring Carla Peterson, noon, Rossborough Inn, \$8. Call x3940 for info.

Mental Health Lunch 'N Learn Conference: "Healthy Companies: Mental Health at the Workplace," Robert Rosen, George Washington U., 1-2 p.m., 3100E Health Center. Call x4925 for info.

Kinesiology Lecture: "What's In It for the Olympic Host City? Toronto's Social Impact Assessment," Phyllis Berck, City of Toronto Olympic Task Force, 2 p.m., 1312 PERH Bldg. Call x2928 for info.

Systems Research Center Seminar: "Stabilization of Zero-Error Manifolds and the Nonlinear Servomechanism Problem," Wilson J. Rugh, Johns Hopkins U., 3 p.m., 1112 A. V. Williams Bldg. Call x5880 for info.

Silver Anniversary Festival Concert, featuring the Symphonic Wind Ensemble, Concert Band, and guest bands, 8 p.m., Tawes Theatre. Call x6669 for info.

21 SAT

University Community Concerts: Sanford Sylvan, baritone and David Breitman, fortepiano, featuring Schubert's Drie Klavierstücke, D. 946 and Die Schöne Müllerin, cycle of 20 songs, Op. 25, D. 795, 8 p.m., Center of Adult Education, \$15 standard admission, \$12.50 seniors and students, free seminar at 6:30 p.m. Call x6534 for info.

22 SUN

University Community Concerts: Gene Bertoncini, guitar and Harvie Swartz, double bass, program TBA, 4 p.m., Center of Adult Education, \$12.50 standard admission, \$10 seniors and students. Call x6534 for info.

23 MON

Research Center for Arts and Humanities Conference: "The Medicinal Muses: The Therapeutic Uses of the Arts and Humanities," today, 9 a.m.-noon, 2-5 p.m., 7 p.m. banquet, Center of Adult Education; tomorrow, 9 a.m.-noon and 2-5 p.m., followed by reception, National Library of Medicine, NIH. Call x1820 for info.

Women's Studies, History, and Curriculum Transformation Project Seminar: "Reshaping Historical Inquiry: The Majority Enters the Curriculum," Gerda Lerner, U. of Wisconsin at Madison, 10-11:30 a.m., Dean's Conference Room, F. S. Key Hall. Call x3841 for info.

International Agriculture Colloquium: "A Humanistic View of Training and Visit Management System," Yoseph Elkana, Embassy of Israel, noon, 0115 Symons Hall. Call x4933 for info.

Department of Housing and Design Lecture: "Automating Design," Michael Eckersley, 2 p.m., 2309 Art-Sociology Bldg. Call x1543 for info.

English Department and Research Center for Arts and Humanities Lecture: "Discourses of Sexual Difference: An Early Eighteenth Century Example," George S. Rousseau, UCLA, 3 p.m., 1117 F. S. Key Hall. Call x1820 for info.

French Lecture: "La vulgarisation du savoir dans la France ancienne," Lise Andries, Centre Nationale de la Recherche Scientifique, Paris, 3:15 p.m., 3118 Jimenez Hall. Call x4303 for info.

Graduate School Distinguished Lecture: "Origins of Patriarchy," Gerda Lerner, U. of Wisconsin at Madison, 3:30 p.m., 2203 Art/Soc. Auditorium. Call x2843 for info.

Campus Senate Meeting, 3:30-6:30 p.m., 0126 Reckord Armory. Call x4549 for info.

Computer Science Colloquium: "Expertise in Parallel Programming," Lisa Neal, Harvard U., 4 p.m., 011 Classroom Bldg. Call x4244 for info.

Horticulture Seminar: "Manipulation of ex-vitro Behavior of Micropropagated Strawberries," Fouad Mohamed, 4 p.m., 0128B Holzapfel Hall. Call x3606 for info.

Space Science Seminar: "Particle Precipitation Regions in the Ionosphere and How They Map back to the Magnetosphere," Patrick Newell, Johns Hopkins U., 4:30 p.m., 1113 Computer/Space Sciences Bldg. Call x3136 for info.

24 TUE

Zoology Lecture: "Iterative Evolution of Dentition in Lamnid Sharks: Is the Great White Really a Mako in Disguise?" Brett Kent, noon, 1208 Zoo/Psych. Bldg. Call x3201 for info.

Engineering Lecture: "Women in Engineering," Mildred Dresselhaus, M.I.T., 3-4 p.m., 1202 Engr. Classroom Bldg. Call x7386 for info.

Economics & National Security Lecture: "Game-Theoretic Models of Deterrence," Marc Kilgour, Wilfred Laurier U., 3:30-5 p.m., Student Lounge, Morrill Hall. Call x3457 for info.

Physics Colloquium: "Proteins and Glasses as Paradigms of Complex Systems," Hans Frauenfelder, U. of Illinois, Urbana-Champaign, 4 p.m., 1410 Physics Bldg. Call x3512 for info.

Hoff Theater Movie: "Solaris." Call x4987 for info.

25 WED

Employee Development Seminar, "Effective Writing," 9 a.m.-4 p.m., 1143 Stamp Union, fee TBA. Call x4811 for info.

Counseling Center Research & Development Meeting: "OMSE New Initiatives: A Consumer Friendly Approach," Mary E. Cothran, noon, 0106 Shoemaker Bldg. Call x2937 for info.

International Coffee Hour, 3-4:30 p.m., 0205 Jimenez Hall. Call x4925 for info.

Afro-American Studies and Public Affairs Lecture: "The Black Family and Public Policy," Joyce Ladner, Howard U., 3:30 p.m., 0100 Marie Mount Hall, reception to follow. Call x5665 for info.

Distinguished Scholar-Teacher Lecture: "Female and Male Managers: How Different?" Kay Bartol, 4 p.m., Art/Soc. Bldg., reception to follow in Art/Soc. Atrium. Call x2530 for info.

CHPS Distinguished Lecture: "Creation in Physical Cosmology: Pseudo-Problem or Superior Truth," Adolf Grunbaum, today and tomorrow, 4 p.m., 1117 F. S. Key Hall. Call x2850 for info.

Architecture Lecture: "The Three Bears," Mark Simon, Centerbrook Architects, 8 p.m., Architecture Auditorium. Call x3427 for info. **CHPS Lecture**: "The Scientific Foundations of Psychoanalysis: An Assessment," Adolph Grunbaum, U. of Pittsburgh, 8 p.m., Jack Masur Auditorium, Building 10 Clinical Center, NIH, Bethesda. Call x28750 for info.

Hoff Theater Movie: "Solaris." Call x4987 for info.

* Admission charge for this event. All others are free.

Calendar information may be sent to John Fritz, 2101 Turner Laboratory or (via electronic mail) to jfritz@pres.umd.edu.



New Compact Disk Features Winner of 1989 Piano Competition

Haesun Paik, first prize winner of the 1989 Kapell Piano Competition, plays music of Debussy, Liszt, Scriabin and Martino on a newly released limited edition compact disk. The opportunity to make this recording was part of the prize won by Paik last summer. Available at \$15 each from the Friends of the Maryland Summer Institute for the Creative and Performing Arts, the disks are being sold to benefit the piano festival and competition. For information call 454-4241.

ARTS AT MARYLAND

Cole's New Book Describes Tranquil History of U.S./Norwegian Relations

In history, like journalism, the good news gets short shrift. Whereas U.S. relations with a tiny adversary like Cuba gets plenty of ink, one almost never hears about diplomatic contacts with tiny friends.

Wayne Cole, professor of history at UMCP, however, has devoted his most recent work to some historical good news. In his newly-released book, *Norway and the United States 1905-1955: Two Democracies in Peace and War*, the specialist in diplomatic history describes five decades of generally peaceful and positive relations between a superpower and a small nation of four million people.

"I had just finished my major project (*Roosevelt and the Isolationists* issued in 1983) and was wondering what I should do next," Cole says. "I happened to be touring Norway and got to thinking, 'What are the problems of peace and security for a small state, one that isn't a great power, that can't make a difference on a global scale, and yet is very much affected by the activities of larger powers?'"

"When I began looking into it, I found that no one had ever done it. This is the story of a small, peaceful, weak, tranquil state that manages, through skillful diplomacy, to maintain its dignity and pride."

In the book, Cole finds a number of parallels between the American and Norwegian response to world events. Throughout the first half of the 20th century both countries turn away from traditionally neutral postures in European wars and eventually become enmeshed in collective security arrangements.

Yet while the history of the U.S. role in the world scene during the first half

of the 20th century is well known, Cole's book offers a detailed account of Norway's less than familiar diplomatic history.

Norway became an independent state in 1905 through a peaceful separation from Sweden. Relatively isolated on the northern fringe of Europe, the fledgling state adopted a policy of strict neutrality at the advent of World War I.

Despite having its shipping lanes riddled by German submarine attacks and despite pressures from Great Britain to enter the conflict, Norway remained neutral throughout the war.

In the late 1930s, when the Nazis began their march through Europe, Norway was again determined to avoid conflict.

"Norway was almost obsessive about its neutrality," Coles says.

Declarations of neutrality, however, did not deter Axis attacks. In April 1940, the Nazis marched into Norway and seized control of the country.

In response, the Norwegian government rebuffed the Nazis in spirit, if not in arms. The Norwegians formed a government in exile, leaving Vidkun Quisling (whose name has since become a noun meaning traitor), to manage the occupation.

After World War II, Norway reluctantly became more engaged in world affairs. Sharing a common border with the Soviet Union, Norwegian officials found it prudent to join NATO.

But even as it became entwined in a collective security pact, Norway continued to try to minimize its involvement. As part of a special arrangement, no NATO troops can be based on Norwegian soil.

"[Norway's diplomatic history] is quite an appealing story," Cole says. ■

—Brian Busek



Wayne Cole

AL DANEGGER

Earth Day Exhibit



In connection with Earth Day, the Parents Association Gallery in the Stamp Student Union is presenting an exhibit that examines the environmental impact of the nuclear age. Photographer Robert Del Tredici's exhibit, "At Work in the Fields of the Bomb" features images that show the many facets of the production of nuclear weapons. As a special program accompanying the exhibit, the gallery will host a peace workshop conducted by activist Betty Bumpers. The exhibit is on display through April 26. For more information call 454-4754.

Suzuki Theatre Expert To Hold Campus Workshops

Students in the College of Arts and Humanities will receive an introduction to Japan's innovative Suzuki theater when actor David Asher visits the campus April 16-21.

Asher, who performed last year in the Arena Stage production of the Suzuki play *The Tale of Lear*, will conduct daily workshops and work with students of Japanese, theater, dance, English and education during his visit.

Suzuki is a theatrical style developed in recent decades by Japanese avant garde director Tadashi Suzuki. The style merges Japan's traditional theatrical forms—Noh and Kabuki—with Western drama. *The Tale of Lear*, the first Suzuki play produced in the United States, is an adaptation of Shakespeare's *Lear* in which the dialogue is much reduced and the tale is recast as a dream-like reminiscence.

"In Suzuki, there is a great deal of emphasis on movement and the physical condition of the actors," says Japanese theater expert Thomas Rimer, chair of Hebrew and East Asian Languages and Literatures.

Asher's visit is co-sponsored by the Committee on East Asian Studies, the



David Asher

Center for Renaissance and Baroque Studies, the MARGIS program and the departments of dance and theatre.

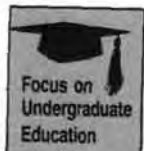
Asher's daily workshops will be held at 5 p.m. for all interested persons. For more information call Michael O'Hara, 454-2543. ■

Helene Cixous Will be subject of French and Italian Lecture

Christiane Makward, a Penn State scholar, will present a lecture on contemporary French writer and critic Helene Cixous at 3 p.m. April 19 in the Multi-purpose Room of the Language House. The lecture, entitled "Helene Cixous and the Myth of Feminine Writing," is sponsored by the Department of French and Italian Languages and Literatures with the support of the College of Arts and Humanities. It is part of the department's effort to facilitate the incorporation of scholarship by and about women into the curriculum. The initiative is coordinated by French and Italian faculty members Madeleine Hage and Carol Mossman. For more information call 454-4303.

CLOSE UP

Capping the College Experience New Capstone Course Lets Seniors Explore Real-Life Issues



As the nation looks to strengthen education at all levels, scholars and educators are examining ways to improve how children are taught and the way teachers themselves learn their craft.

One new initiative that strives to improve teacher education is Project 30. Funded by the Carnegie Foundation, Project 30 is a group of 30 select colleges and universities whose main goal is to redesign teacher education. The University of Maryland at College Park is one of the 30 schools involved.

Five members of the College Park faculty serve on the university's Project 30 team—Dale Scannell, dean of the College of Education; Paul Mazzocchi, dean of the Colleges of Life Science and Agriculture; Bill Higgins, acting associate dean for the Colleges of Agriculture and Life Sciences; Richard Arends, chair of the Department of Curriculum and Instruction in the College of Education; and Linda Berg, lecturer of botany.

Berg says that Project 30 is different from several other national efforts to improve teacher education for two reasons. First, Project 30 has no preconceived agenda.

"Most other teacher education reform efforts have narrowly defined goals, but Project 30 is open for unusual approaches," Berg says. "They are letting the schools design projects that best meet the needs of the particular institution."

The second reason Project 30 is different is that it requires interaction of faculty in both education and liberal arts. At College Park, the project happens to involve science faculty.

For the Project 30 initiative at College Park, Berg says they are taking a somewhat different approach than other schools that are revising undergraduate

education or specific requirement for education majors. Instead, Berg says, they have created a capstone course for senior science education and life science majors.

A capstone course is ideally one of the last classes a senior takes in his or her major before graduating from the university.

"By the time students graduate, they should have become 'experts' in their major," Berg says. "The purpose of a capstone course is to help the student integrate the major with the rest of the undergraduate education experience. A capstone course should touch on real-life issues and help students see where their major fits into the real world."

One of the recommendations of the Pease Report on Undergraduate Education is a capstone course to round out every major. While that may not be feasible in the near future, Berg says that they hope their course will be a prototype for capstone courses in the Colleges of Life Science, Education and Agriculture. She says that the Project 30 team modeled their course after a couple of similar courses in existence at College Park.

Mechanical engineering majors, for example, take a course in which they design and build a car, but they must also work within a budget and consider energy efficient measures. Students majoring in natural resources management take a course in which they develop a plan for managing a watershed. The plan must take into account not only biological and agricultural aspects of watershed management but also political and economic considerations of local farmers.

Berg hopes to teach the first Project 30 capstone course in Spring 1991. The topic of the course, which currently is under review for approval, will be global climate change.

"I view global climate change as a biological problem, and in this course, we will approach the problem that way," Berg explains. "In the beginning of the course, there will be a fair amount of science, but the main focus of the course will be the class project."

For the project, Berg will tell the class that the president of the United States has come to them and asked them to develop a comprehensive 10-year plan to deal with global climate change. The class will be expected to plan programs to prevent, mitigate the effects of, and adapt to global climate change and to examine the costs of these programs. She will divide the class into groups to work on the different plans.

"It will be difficult to evaluate the students when they are working in groups," Berg says, "but in the real world, people work in groups. I want them to see the frustrations and the benefits of working in a group."

Berg says it is exciting to see the culmination of the work of the Project 30 team, which formed in 1988. The capstone course was an idea for improving undergraduate education recommended by the university, but Project 30 helped bring the idea to reality.

"Without the Carnegie Foundation and Project 30," Berg says, "we wouldn't have been pushed to develop the course as quickly as we did. I'm glad, because the students will benefit."

—Jan Barkley

Students Show Appreciation for a Good Teacher

Linda Berg, lecturer of botany, is proud of her abilities as a teacher. "I'm a good teacher," she says, "because I work hard at it. I'm always searching for new and better ways to teach a course. I can always improve." Her students are grateful for her hard work. In a letter to President William Kirwan last fall, the students of her Biology 105 class expressed their appreciation for their teacher. The letter was signed by 85 students.

November 27, 1989

Dear President Kirwan:

We, the students of Professor Linda Berg's Biology 105 would like to let you know what a fantastic professor Dr. Berg is. By sharing with you the aspects of Dr. Berg's teaching which we find helpful, we hope to encourage this high standard of excellence throughout the university.

When Linda Berg, Ph.D., steps into the classroom, five minutes before class is to begin, she is extremely prepared. She has outlined the entire lecture on computer and knows exactly what material she is going to cover and how she is going to present it. Each lecture begins with a review of the material covered in the previous lecture and ends with an introduction to the next lecture, providing continuity between lectures.

By presenting the basic material which we need to know in a clear, outlined manner, and then supporting that information with graphs, sketches, specific examples and commentary on the latest experiments in that particular area, Dr. Berg imprints a lasting foundation of knowledge in our heads. Many of us have exclaimed that we learn more during one of Dr. Berg's lectures than we ever learn after weeks of studying for other classes. Her lectures are easy to follow, easy to take notes on, and yet through the efficient use of words, Dr. Berg is able to convey large quantities of information in 50 minutes and still have time to answer questions at any point in her lecture.

Questions are in fact encouraged by Dr. Berg, and each question posed to her, she restates to ensure that she understands what has been asked and then answers that specific question. Additionally, she provides a range of office hours when we can visit and talk with her about the course.

To back up her lectures, she provides a syllabus at the very beginning of the term, so we always know exactly what material in the text book will correspond with her lecture. There are tapes of her lectures and copies of her computer notes available to all students who may have missed a lecture or who simply want to reinforce what they learned.

In every way, it is obvious to us that what she teaches is important to her, and she wants to help us learn as much as possible, as easily as possible. We see her enthusiasm in the personal anecdotes of biological studies that she shares with us; we are awed by her knowledge each time we review our notes; and we are thankful for her teaching skills each time we leave her classroom.

Sincerely,
The Biology 105 Students of Dr. Linda Berg



Linda Berg advises sophomore geology major Jeff Joseph.

FARISS SAMARAI

Earn Your Supervisory Development Certificate

Recognizing that training is a key element in the development of a successful supervisor, the Personnel Services Department has instituted a series of seven non-credit courses leading to a Certificate of Supervisory Development. Courses cover such topics as supervision, personnel services, communication strategies, leadership, motivation, and time management. To benefit from this valuable training program, call the Employee Development section at 454-4811.

COLLEGE PARK PEOPLE

Smaller Is Better as Organic Chemistry Labs Go to Micro-Scale

Rising costs and recent rule changes by the Environmental Protection Agency have made the removal and disposal of hazardous substances generated by college and university chemistry laboratories both expensive and increasingly complicated.

Enter the micro-scale program.

Instead of using chemical samples of between one to 10 grams when running their lab experiments, undergraduates taking the introductory course in organic chemistry here now are using sample amounts as small as 10 milligrams.

Not only are the samples of chemicals used in the experiments smaller, but so is the laboratory equipment and apparatus used to conduct them. The glass microware, which comes packed in a well-padded briefcase-size carrying case, consists of mini reaction vials, connectors, condensers, and drying tubes, as well as distillation, gas collection and recrystallization equipment. Each student has his or her own microware kit. The equipment has been called "tinker toys for chemistry students" because it is both fun to use and because of the way the apparatus can be connected and disconnected.

Begun in 1985 as pilot projects at Mount Holyoke and Bowdoin colleges, the micro-scale program's popularity and practicality has caught on at colleges and universities around the country. The list of schools adopting micro-scale in the past several years numbers more than 300 and continues to grow.

Micro-scale was introduced at College Park last spring and since September, the



Dorothy Mazzocchi and undergraduate Steve Cayelli examine micro-scale equipment in organic chemistry lab.

second semester of all regular and honors sections of CHEM 233-243 use it. Between 500 and 600 students take the course during the year. This spring it is being offered in 18 separate sections.

Micro-scale, says Dorothy Mazzocchi, laboratory manager for the UMCP Department of Chemistry's lower division organic chemistry program and an instructor in the department, goes to the heart of such issues as economics of scale and economics of disposal and the economics of clean air.

Organic chemistry experiments can

generate noxious gases that must be vented out of the lab.

"It is very hard to keep up to standards of clean air when you are using larger amounts of substances," she says.

While the start up costs of going to micro-scale are significant, she says, in the long run it is far less expensive than renovating and upgrading the venting and exhaust systems an entire laboratory classroom building.

Experiments and lab work performed using the micro-scale approach generate much smaller volumes of hazardous

gases and consequently less exhaust hood space is needed. This reduces the problem of air evacuation in the lab and means that instead of needing huge overhead vacuum hoods to vent hazardous vapors, simpler facilities for air exchange can be used.

Mazzocchi says the micro-scale labs use small, down-draw, down-draft hoods not unlike those Jenn-Aire stovetop units used in the home kitchen. "We don't have the air handling problems we would have with large hoods," she says.

The savings in waste disposal costs for organic chemistry will have paid for the micro-scale program start up costs within three to four years, she notes.

There is another benefit to the micro-scale program.

"Students who have been exposed to the micro-scale approach learn to work much more carefully and economically, and are much more dexterous when using other more sophisticated equipment in upper level courses," Mazzocchi observes. "In addition, students are now being introduced to hands-on instrumentation experience as diagnostic instruments play an important part in the micro-scale lab."

Each new experiment in the undergraduate organic chemistry course is introduced by a short 5-6 minute instructional video tape that emphasizes the new procedures called for by the experiment. The tape is repeated continuously during the first half hour of the lab session. The tapes were prepared last summer by high school chemistry teachers here under the auspices of an NSF-sponsored honors research and leadership program. ■

—Tom Otwell

Modern Physicist Delights in Ancient Music

Rankett, krumhorn, shawm, and sordun.

The names of these early musical instruments sound as though they ought to be in a Dr. Seuss poem and not part of the vocabulary of a theoretical physicist.

John Guillory is a research associate with the Laboratory for Plasma Research where he is conversant with the behavior of energetic electrons in ionized gases. He is also associated with the California-based Plasma Research Corporation, working out of the company's northern Virginia offices.

But he is equally at home discussing the subtle arcanum of medieval and Renaissance music, some of it composed 400 years before the birth of J.S. Bach.

Guillory traces his passion for the old music to his days as a graduate student at Berkeley in the early 1960s where he heard it played on a Bay Area radio station. "I liked what I heard a lot," he recalls. The next step was as obvious as it was prophetic. He bought a \$7.50 recorder and taught himself to play.

What followed was the beginning of what now is an extensive personal collection of records that number more than 1,000 albums. His question in the

1960s was: why isn't more of this kind of music available? and it formed the roots of "Musica Antiqua," a Washington-based ensemble specializing in performances of medieval and Renaissance period music.

During his early efforts to revive some of this music, Guillory admits that he spent more time sifting through the music libraries at Berkeley than he did in the university's physics library.

When he came to Maryland as an assistant professor in 1974, Guillory sought out others who shared his interest. It was then that he founded "Musica Antiqua."

The ensemble has performed at the Kennedy Center, on WETA-TV, in the Westmoreland and Strathmore Hall concert series, at the Renaissance Festival, the University of Maryland, Mount Vernon College, numerous other churches and colleges throughout the metropolitan area, and annually at the Washington National Cathedral.

Its March 1990 concert, "Musical Vision: Early Music by Blind Composers," was performed at St. Columba's Episcopal Church in upper Northwest Washington.

On Sunday, April 29, "Musica Antiqua" will perform a program called "Folk Roots—some of the earliest folk tunes and their offspring" at 4 p.m. in Old Town Hall in Fairfax. "Folk Roots" will feature soloist William Taylor, division winner in the 1989 Gaelic National Harp Competition.

"Musica Antiqua" normally features four to six specialists playing period instruments, and four to eight singers specializing in the vocal styles of the period. The group has one of the area's largest collections of performing replicas of medieval and Renaissance instruments.

Guillory says the group has been especially active in discovering and performing relatively unknown but attractive early musical works that deserve to be better known.

"We are like a research organization, looking at performing new repertoire, finding the things that aren't old warhorses and getting those surprisingly beautiful things heard," Guillory says. "I do a lot of browsing and researching. I've spent a lot of time over the last 20 years in music libraries at Berkeley, the Library of Congress and, one night each week, at Hornbake Library."

In addition to performing on period instruments, the group also sings, using many languages no longer commonly spoken. These include Medieval French and Provincial, old Dutch and German, Hungarian, early Polish, Latin and Galician. The singers become specialists or researchers in pronunciation of these languages, Guillory says.

The group performs six times a year in the Washington metro area. "We try to carry out an educational mission as well as entertaining," says founder and director Guillory. "And for those of us who are performing, it is a sort of graduate seminar."

"Musica Antiqua" has received widespread critical acclaim locally.

"Wonderful performance of this wonderful music!"—Sabina Barach of WETA-TV's Art Beat.

"...beautifully performed. The group is fine in instrumental and solo vocal music but at its best in ensemble singing."—Joseph McClellan, The Washington Post.

"...Enthusiastically received. The lively playing was highlighted by the distinguished work of the group's lutenist..."—Robert Bryce, the Montgomery Journal. ■

—Tom Otwell

PERH Renamed College of Health and Human Performance

In case you haven't heard, the College of Physical Education, Recreation and Health has been renamed the College of Health and Human Performance and the Department of Physical Education also has been renamed the Department of Kinesiology. Along with the change, the college's familiar PERH moniker will become HLHP, but the building will remain PERH. The college is starting a newsletter this spring to inform alumni of the changes.

Earth Day Seminar Looks at Environment

An Earth Day 1990 Program on The Environment will be held April 20 in the Center of Adult Education. Sponsored by the university and the Hugh O'Brian Youth Maryland Leadership Seminar Foundation, the event will focus on crucial environmental issues facing the U.S. and other nations worldwide, with debates on the impact of global warming, deforestation, oil spills, acid rain, and other ecological crises on people, wildlife, food sources and public health and safety services. Potential solutions, will be addressed by David Kirkpatrick, associate editor of *Fortune* magazine and others. The program runs from 6 p.m. to 8:30 p.m. Call 454-4137.

OPINION

Parents Should Encourage Student Involvement

by William L. Thomas Jr.,
Vice President for Student Affairs



William L. Thomas Jr.

The following is a column reprinted from the premiere issue of the *Terrapin Parent*, a new newsletter created to communicate with the parents of University of Maryland at College Park students. It is produced by the Office of Student Affairs.

G.K. Chesterton once wrote, "There are two ways of getting home ... one is to stay there. The other is to walk around the whole world till we come back to the same place..." I believe that Chesterton's 'journey around the world' is a useful illustration of what a truly enabling education can be.

There are some students who in their years at College Park will choose to 'stay there' ... to stay at home. They will not venture very far beyond the classroom and the library. They will let others take the opportunities to get involved in a special research project with a professor. They will decline to run for dorm government and they will not often choose to become involved in the campus' many and varied student organizations. After completion of 120 credits they will receive, indeed, a first rate degree... but, they will have missed much of the education that we want them to attain. At College Park we strive to cultivate the values and intellect of our students by teaching students to extend principles and ideas to new situations and within new groups of people. There are many things that can and should happen to students in their col-

lege years. Knowing that students mature in many facets of their life during this time, we particularly seek to provide challenges and experiences that will result in the development of:

- a sense of personal identity and integrity
- a sense of personal responsibility for the dignity and welfare of others, and for what is best for the common good
- a balanced set of personal and social purposes
- a continuing eagerness for knowledge and understanding
- an intellectual and cultural foundation that will allow a lifetime of enrichment and fulfillment. Further, we want our students to understand and honor the human values that sustain our society, and to learn to live their lives accordingly. We *know* that students grow more and better in these ways through an enriched and varied set of experiences than if they choose to minimally meet their academic requirements. We *don't know* which set of experiences will work best for each individual. We are all different in many ways. But, we strongly encourage a spirit of adventure and purpose. Involvement heightens all aspects of learning. Classroom performance is heightened when students are more involved in classroom activities. Personal and social growth are enhanced through involvement in both in-class and out-of-class activities. Educators have great consensus on the importance of involvement to the degree and quality of learning that can occur. National studies repeatedly confirm these truths. Again, we know that involvement is critical to a successful collegiate experience. The University of Maryland offers many paths for students to 'travel,' some of which are more than likely to make a genuine contribution to their education and future.

The path may be participating in the Society for the Advancement of Manage-

ment, it may be working as a shuttle bus driver, or it may be serving as a research assistant to a professor. From my vantage point, I have observed that no matter what form involvement takes, there are benefits. On a campus as large as Maryland, involvement helps students find a series of new friends, or new neighborhoods, in which to feel secure as well as adventurous. Involvement provides students with an opportunity to test or apply what they have learned in the classroom. At the same time, through extracurricular involvements, skills are learned or honed which are not necessarily taught in formal classes.

Involvement need not be limited to volunteer experiences. Working in any of the offices or agencies on campus allows students to earn money toward their education, while connecting them to the campus, and providing a new and different laboratory in which to test new knowledge and expand new skills. The breadth and scope of activities are, fortunately, almost endless at our university. There is something going on to suit almost every need or interest. You can be an important catalyst in your student's journey through college. Encourage, as best you can, your student to get involved. Talk to them about what they are involved in, and what they hope to gain. Be involved yourself! Stay connected to the university and visit the campus periodically. Your involvement in College Park will confirm the value that you place on your student's education. "The sum of the experiences" that occur during the collegiate years can make an enormous difference in determining if a student receives the kind of education that we would all want to cherish. Help us to help your son or daughter to walk around the 'whole world' while they are here. ■

Police Department Releases 1989 Crime Report

Overall crime at the university dropped 11 percent between 1988 and 1989 while violent crime fell one percent. According to the 1989 Uniform Crime Report Analysis recently released by the University of Maryland at College Park Police Department, the university showed a drop in total crime from 1,408 cases in 1988 to 1,275 in 1989. The university's rate of 21 crimes per 1,000 people was significantly lower than the rates of surrounding areas.

The number of violent crimes at UMCP fell from 20 cases in 1988 to 19 in 1989 and accounted for only 1.5 percent of the total crime rate. There were no murders or forcible rapes.

Robbery cases increased from seven in 1988 to eight in 1989, a 13 percent increase, compared to a 19 percent increase in PG. County. According to the report, the UMCP robberies did not appear to be drug related.

Aggravated assault cases decreased 15 percent (from 13 to 11) while Maryland's increased four percent and PG. County's decreased one percent. Motor vehicle thefts at UMCP increased 13 percent (by 5 cases), compared with a PG. County increase of 4 percent and a steady statewide increase.

Breaking and entering cases at UMCP decreased 38 percent in 1989 from 247 to 153, compared to a state decrease of three percent and a PG. County decrease of one percent.

The campus maintains many crime prevention services and programs to create a safe environment for the campus community. Among these are: a campus security lighting program which over the past several years has involved major lighting of all campus parking lots. The university has committed \$2.1 million to this program. An emergency blue light telephone system provides higher visible communications in the event of campus emergencies. Also, all public telephones on campus can contact the University of Maryland Police without payment. The two phone systems provide 350 emergency telephones to the campus.

Other security measures include a campus shuttle bus system which reaches all major points on campus; the call-a-ride program which operates from dusk until dawn; resident walking patrols who patrol campus between 4 p.m. to 7 a.m. and 24 hours per day during weekends and semester breaks; a safe living booklet distributed widely on campus and handed out to all new students; an award-winning security film shown to many students on campus; as well as such measures as engraving student property; a key control program; intruder alarms in academic departments; security surveys and security booths located at the two major entrances to campus between 11 p.m. and 6 a.m. All other roadway entrances are closed during these hours. ■

Meteorology Presents Fourth Global Change Lecture



Edward Lorenz

A Science of Global Change lecture, "Chaos and the Climate," will be presented April 19 by Dr. Edward N. Lorenz, professor emeritus, Massachusetts Institute of Technology, Cambridge. Lorenz, an internationally distinguished pioneer of the mathematical science of chaos, will speak about the chaotic nature of the climate system. He will consider the implications of chaos on anticipated global warming. Lorenz's lecture, the fourth in a series of global change lectures presented by the Department of Meteorology, begins at 8 p.m. in the Auditorium of the Adult Education Center at University Boulevard and Adelphi Road. Call 454-8321 or 454-2708.